

MARIO E. FRANCISCOLO (1)

REVISION OF *ZEAMORDELLA* BROUN 1886 AND  
*STENOMORDELLARIA* ERMISCH 1950

(COL. MORDELLIDAE) (2)

Since BROUN (1886), New Zealand Mordellidae received very little attention (RAY 1939, ERMISCH 1950, 1962, FRANCISCOLO 1943, 1952, 1957, 1965).

Dr. J. Charles Watt (Head, N.Z. Arthropod Collection, Auckland) at the XIV Int. Congress of Entomology in Canberra was kind enough to propose revision of New Zealand Mordellidae, Scraphiidae and Rhipiphoridae, submitting for study the related material.

Recently, Dr. Roberto Poggi (Curator, Museo di Storia Naturale, Genoa) submitted a specimen found in a box containing New Zealand material received in exchange by Dr. R. Gestro from Capt. T. Broun, which, in relation to the correspondence found in the Museum files, could be traced as belonging to *Zeamordella monacha* Broun 1886:847. Dr. Poggi is giving in this same review an account of such an interesting exchange of letters (POGGI 1980: 187).

In the same circumstance he found two ♂♂ of *Mordellistena neglecta* Broun 1880: 415 which resulted to be a *Stenomordellaria* Ermisch 1950:57.

I thank both Dr. Watt and Dr. Poggi for the material submitted, allowing a thorough revision of two very little known New Zealand genera.

***Zeamordella*** Broun 1886:847

CSIKI 1915: 26; RAY 1939: 277-278; FRANCISCOLO 1943A: 38-39; ERMISCH 1950: 70; FRANCISCOLO 1952: 67, 1957: 218, 1965: 348.

Type species: *Zeamordella monacha* Broun l.c. (the genus is at present still monobasic).

(1) Address of Author: Corso Firenze 44-6, 16136, Genova, Italia.

(2) 49th contribution to the knowledge of Mordellidae.

### Diagnosis (3)

Form definitely mordelloid (fig. 1-2). Head normally convex: no setigerous frontal pit; occipital margin regularly convex, without any medial protuberance or pit. Eyes (fig. 19) neither emarginate or hypochranially expanded, pubescent, finely granulated (diameter of corneae 0.014 mm). Antennae, in both sexes, not flabellate, articles 5th-10th much longer than 4th (fig. 8,9). Maxillary palpi (fig. 6) of type « B » in both sexes. Labial palpi as in fig. 7. Galeae much shorter than one half of head length, hardly longer than laciniae (fig. 5). Hind margin of pronotum with median lobe convex and protruding (fig. 1,2). Scutellum exactly semicircular (fig. 4). Metepisterna and elytral epipleura as in fig. 15. Elytra totally concealing abdominal terga, except pygidium, separately rounded at apex (fig. 1,2). Hind wings fully developed. Front tibiae simple in both sexes (fig. 1,2). Front and middle tarsi with penultimate article very briefly emarginate at tip, not bilobed at all (fig. 11-14), in both sexes. Middle tibiae slightly longer than middle tarsi (as 6:5). Hind tibiae with an extremely short preapical ridge, running entirely parallel and very close to apical margin; a thin outer dorsal ridge runs all along their length; hind tibial spurs pubescent, obconical, not serrate; basitarsus bearing a thin outer dorsal ridge as well (fig. 10). All claws varicosus and strongly dentate, with bristle-like and thin basipulvillus (fig. 11-14, 17) (4). Paramera strongly asymmetrical, of type « B » (fig. 22-23). 8th urosternum of ♂ meeting the « *Neocurtimorda* » type (fig. 18).

### Affinities

*Zeamordella* is a fully valid genus, to be settled in the present system of Mordellidae in subfam. Mordellinae, tribus Mordellini; ERMISCH (1950:70) was right in his interpretation; I was wrong (1943A: 38-39) in stating a relationship to *Glipa* s.l., since later the maxillary palpi of type « B » resulted not to be confined to *Glipa* s.l. only.

For identification purposes, the three genera of Mordellini having exactly semicircular scutellum may be included at couplet 51 (26) of my key to world genera (1965: 344-348):

(3) Criteria and terminologies are those established by ERMISCH (1950: 38) and myself (1957, 1962).

(4) A discussion on basipulvillus in Mordellidae is given herewith at p. 209.

- 51 (26) Scutellum exactly semicircular (fig. 4 h.o., fig. 19b RAY 1939:294, fig. 2 FRANCISCOLO 1952:68).
- 51A (51B) Hind tibiae apically and internally bearing a single terminal spur; this spur is large, transversely flattened, curved behind, sharp, unusually long (2/3rds of basitarsus). Penultimate article of front and middle tarsi linear, not emarginate at apex. Eyes with a strong emargination at their cervical side .....  
 ..... *Mordelloides* Ray 1939:278  
 Monobasic; in the unique species (Mexico: Veracruz) pygidium is very long (4,4 times the hypopygium), funnel-shaped, strongly narrowed at its proximal fifth.
- 51B (51A) Two normal, obconical metatibial spurs (fig. 10 h.o., fig. 14 FRANCISCOLO 1952:68). Penultimate article of front and middle tarsi distally emarginate (fig. 11 h.o., fig. 8-9 l.cit.). Eyes complete (fig. 19 h.o. and fig. 5 l.cit.).  
 Pygidium, in both sexes, has no unusual features (fig. 1-3 h.o., 1-4 l.cit.).
- 51C (51D) Head strongly flattened from frons to clypeus, the latter much expanded; outer side of mandibles longer than maximum diameter of eye (fig. 1 and 5 l.cit.); hind tibiae and tarsi without dorso-lateral ridge; maxillary palpi mordelloid, of type « A » in both sexes .....  
 ..... *Caffromorda* Francisc. 1952:66  
 Monobasic (South Africa); no pubescent markings in the type species.
- 51D (51C) Head normally convex between frons and clypeus; the latter not frontally expanded; outer side of mandibles shorter than maximum diameter of eye; hind tibiae and basitarsus with an outer dorso-lateral ridge (fig. 10); maxillary palpi glipoid, of type « B » (fig. 6) in both sexes .....  
 ..... *Zeamordella* Broun 1886:847  
 Monobasic (New Zealand); pale pubescent markings in the type species.
- 52 (3) to follow as in l.cit.: 348

## Discussion

Scutellum in fossil Mordellidae (those described by ERMISCH 1941A and 1943, being family status of other ones highly uncertain) is definitely triangular; so it is in the only known genus of Ctenidiinae (FRANCISCOLO 1952A:156) and in 58 genera of Mordellinae out of 62; only a few species of *Raymordella* Francisc. 1956:225 and *Neomordellistena* Erm. 1950:67 (Mordellinae-Mordellistenini) have subsemicircular scutellum; more frequently, but in Mordellinae-Mordellini (13 genera out of 52) scutellum is rectangular, square, trapezoidal, sometimes with posterior margin excised, like, e.g., in many Oedemeridae.

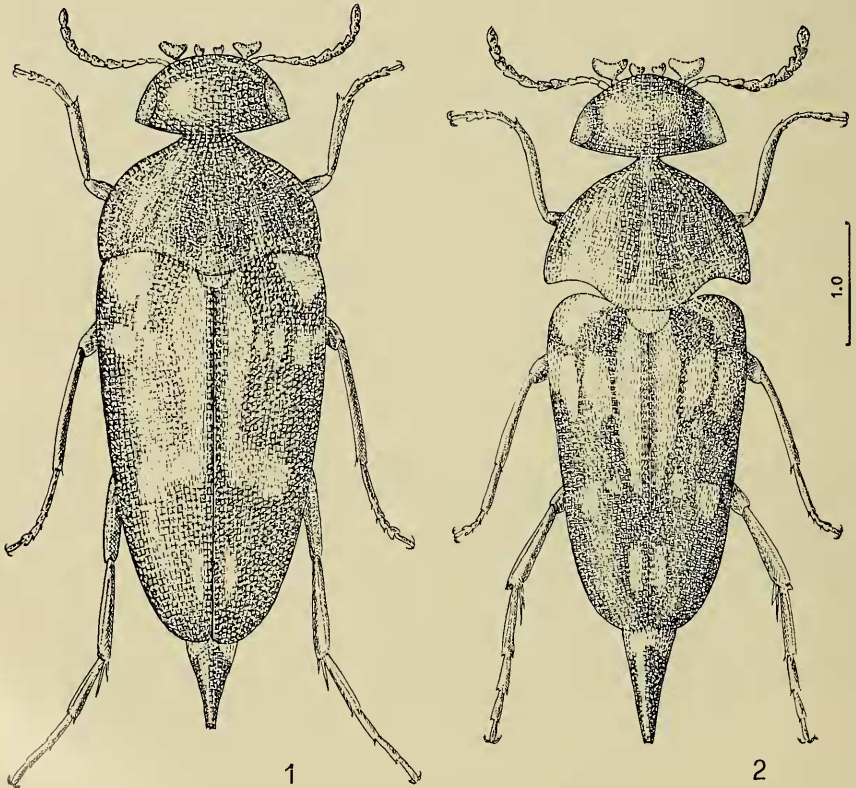


Fig. 1-2: *Zeamordella monacha* Broun, 1: ♀ holotype; 2: ♂ neallotype (scale in mm).

Triangular scutellum is therefore the rule. Mordellidae have not the extreme variability in scutellar form met with in other eteromeric families, e.g. Tenebrionidae, with fully obtected scutellum (Erodiini), exposed rhomboid one (Pimeliini), whereas triangular scutellum is exceptional (for instance in Akini); or Meloidae and Melandryidae (the latter, in Hypulini, having transversely rectangular scutellum). In Rhipiphoridae mesoscutum is totally exposed in the brachelitrous genera (e.g. *Metoeus*, Rhipidiini); pearl-formed or subsemicircular scutellum (Pelecotomini) or scutellum totally obtected by the basal lobe of pronotum in many Rhipiphorini such as *Macrosiagon*, *Emenadia*, is otherwise rather frequent.

It is unlikely that semicircular scutellum (versus the triangular one) improve mechanically the opening of elytra at take-off, if in all Oedemeridae (having a well known fast take-off) triangular scutellum is exceptional (we find it in *Oedemera* only); furthermore, elytral coaptation is totally loose in Mordellidae, as much as it is in Oedemeridae (in this family triangular scutellum is present, surprisingly, in the forms having suturally divaricated elytra); in macropterous Rhipiphoridae elytra are not coaptate at all.

Finally, the three genera having semicircular scutellum are monobasic, and are confined to zoogeographical regions rather separate from one another (Mexico, South Africa, New Zealand).

Therefore the triangular scutellum in Mordellidae can be regarded as a primitive condition, and I conclude that the opinions of the ancient Authors (from ACHILLE COSTA 1854: 8 and MULSANT 1856:18 to BROWN 1886:847), who attributed diagnostic importance of generic rank to the form of such mesothoracical sclerite, are fully acceptable.

However, since *Mordelloides* Ray 1939:278, though having semicircular scutellum, shows characters (eyes cervically emarginate, hind tibiae monocalcarate, as in certain tropical Rhipiphoridae) which do not align it to any of the other genera, and since such scutellar form is met with also in Reynoldsiellini (FRANCISCOLO 1957:237) with one monobasic genus only having hind tibiae without preapical ridge (another typical rhipiphoroid character) it is easy to conclude that the semicircular scutellum, in genera otherwise rather different from one another, is imputable to mere convergence. From a morphofunctional standpoint, since such semicircular form noticeably increases the trait of loose scuto-elytral coaptation, I interpret it as a transition to the variously rectangular forms (with further increase in coaptation complicity) met with in the

genera grouped around *Tomoxia* Costa 1854:8, whose imagos are not (or exceptionally only) floricolous, of large dimensions and stout form, infeudate to rotting trees, fungicolous and having a hard take-off.

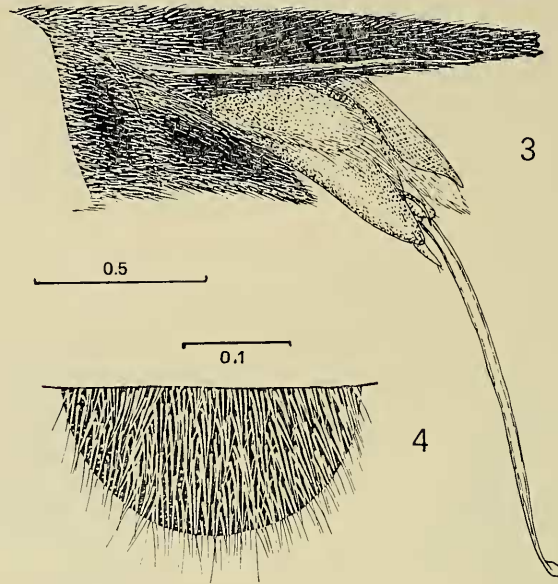


Fig. 3-4: *Z. monacha*, 3: ♂ neoallotype, side view of terminal urites; 4: ♀ holotype, scutellum.

*Zeamordella* and *Caffromorda* appear, morphologically, rather similar; they differ from one another, substantially, along the usual patterns mundially met with in the family; the gliroid form<sup>(5)</sup> of maxillary palpi in *Zeamordella* (as well as of labial palpi, fig. 6,7) in both sexes, in my opinion is indication of imagos having a prevailingly nectarivorous, rather than pollinivorous, feeding; such form is present, but much more exaggerated, and in labial palpi only, in *Sphingocephalus* Liljeblad 1945:206 (Scraptiidae); on the other hand, the last segment of maxillary and labial palpi in form of a subaequilateral or isoscele triangle, slightly concave dorsally, almost spoon-shaped, is the rule in both sexes in Cy-

(5) which is the rule in the genera of the *Glipa* group (FRANCISCOLO 1965: 347).

chrini (Carabidae), highly specialized to ingest fluid and dense, extra-orally predigested animal food.

The fact that *Zeamordella* is confined to New Zealand and *Cafromorda* to the extreme south of Africa is rather in agreement with the general impression induced by their morphology indicating a real reciprocal philogenetical relationship of rather remote ancestry<sup>(6)</sup>.

### *Zeamordella monacha* Broun 1886:847

CSIKI 1915: 26; FRANCISCOLO 1943: 38-39; ERMISCH 1950: 70.

Locus classicus: « I shook two off birch-trees near the residence of Mr. Hampton, at Pokeno, Auckland » (BROUN l.cit.).

Material examined: 15 specimens, so labelled<sup>(7)</sup>: 1 ♂, designated neallotype, « on cherry tree/Owairaka/4 Jan. 1953/M.W. Carter » (NZAC); 1 ♀, designated holotype, « 1505/N. Zel. Broun » (MCSN)<sup>(8)</sup>; the following lectoparatypes: 2 ♀♀, « Clevidor (apparently BROUN's handwriting)/T. Broun Collection/A.E. Brookes collection » (NZAC)<sup>(9)</sup>; 1 ♂ « Kaimanawa/Nth. Park TO/18 Dec. 71/J.S. Dugdale » (NZAC); 1 ♂ « Waiheke Is./17 Jan. 1943/O. Chamberlain » (MCSN ex NZAC); 1 ♂ « In weevil holes/*Corinocarpus laevigatus*/Bethells/14 Nov. 1967/B.M. May » (Author's coll., ex NZAC); 1 ♀, same indications, collected by D.J. Allan (NZAC); 1 ♀ « Owairaka/7 Dec. 1942/M.W. Carter (Author's coll., ex NZAC); 1 ♀ « Okauia/1-0-22 (probably 22.1.1900)/614/A.E. Brookes Collection » (NZAC); 1 ♀ « Lake Ngatu/N/of Kaitaia/5.1.63/ES Gourlay/E.S. Gourlay/Acc. 1970/Ent. Div. » (NZAC); 1 ♀ missing of head, well identifiable, « Taiohar-anui/N. Auckland/24 Dec. 56/L.C. Watt » (NZAC); 1 ♀ « Tauranga/on *Dahlia*/29.1.66.J.C. Watt » (NZAC).

(6) I reach therefore conclusions quite different from those suggested by RAY (1939: 227-228) who said « ...*Mordelloides*, *Zeamordella* and *Reynoldsiella* may be linked together because of the semicircular scutellum ».

(7) I follow WATT 1979 for indicating the Institutions where specimens are kept; hence NZAC = N.Z. Arthropod Collection, Entomology Div., Auckland; MCSN = Museo Civico di Storia Naturale G. Doria, Genova.

(8) Number « 1505 » appears written by BROUN himself, writing being identical to that of specimens found in the former BROUN Collection (NZAC), and meets with the serial number given by BROUN to species treated in 1886; this is the specimen found by Poggi, and it is contemporary to BROUN's series; the writing « N. Zel. Broun » appears to be of G. Mantero, assistant at the Museum in Genova at the time of exchanges between BROUN and GESTRO.

(9) The identical hand-writing, pin and card, as well as the style of preparation suggest that these two specimens are contemporary to the holotype.

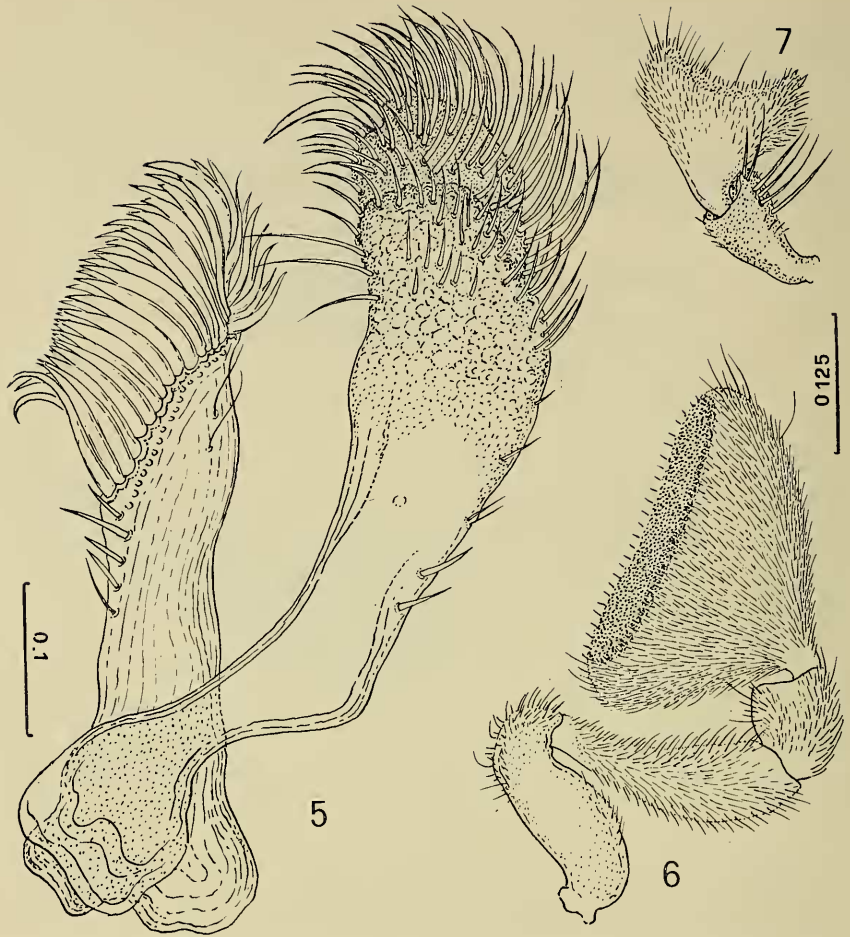


Fig. 5-7: *Z. monacha*, 5: galea and lacinia, dorsally, ♂ neallotype; 6: maxillary palpus of same; 7: last two articles of labial palpus of same.

### Bionomics

Some clues are supplied by the many collecting data: 1) having been taken from 14.XI to 29.I, it appears to be a summer or late-summer species, like some thermophilous european genera (e.g. *Mordella* sbg. *Medimorda* Méc.); 2) earliest collecting date (14.XI at Bethells) coincides with the emergence from weevil holes in *Corinocarpus laevigatus* J.R. Forst, 1776 (Corynocarpaceae, see Flora of New Zealand,



1961); this might indicate that larvae are predaceous rather than xylophagous (unlike those of Mordellini so far known); 3) the species appears, so far, confined to the North Island, as well as to the islet of Waiheke (Gulf of Hauraki, East of Auckland); 4) the imago is floricolous, found on cherry and *Dahlia* (Campanulaceae, Tubiflorae); this fact is in agreement with the hypothesis about the imago being nectarivorous; 5) like some tropical Mordellini, the imago has also foliage-dwelling habits (on birch, BROWN l.c.).

#### Redescription (10)

Dimensions (average on 15 specimens, in mm): head ♂ 0.95 x 1.30, ♀ 1.1 x 1.35; pronotum ♂ 1.20 x 1.69, ♀ 1.20 x 1.69, ♀ 1.30 x 1.00; elytra ♂ 2.65 x 1.65, ♀ 3.0 x 1.9; total length ♂ 4.80, ♀ 5.60; pygidium ♂ 1.1 x 0.5, ♀ 0.8 x 0.45. Dimensions are rather constant in the specimens examined.

General form as in fig. 1 (♀) and 2 (♂); males show a slight constriction at middle of elytra, females have outer margin of elytra regularly convex. Ground color black, glossy, with blue shines; epistome, labrum, mandibles, labial and maxillary palpi, labium, first four antennal articles and base of 5th one, yellow-brownish; some ♀♀ have front tibiae and tarsi paler; hind tibial spurs yellow; color is rather constant in the specimens available. Ground pubescence dark, shining, sericeous, decumbent, with cupreous shines under certain lights; pubescent markings arranged according to the pattern usual in Mordellini as per fig. 1 and 2; of golden shine, they are particularly neat and brilliant in ♂♂, less distinct in ♀♀ especially on pronotum; variations in design follow the pattern already described by BROWN in l.c.: 847; metepisterna, metasternal process and each urosternum, and a narrow basal band on dorsum of pygidium (fig. 1,2,3) with golden pubescence. Head normally convex, transverse, larger than long (as 4:3), narrower than pronotum; occipital margin, from above, appears in form of a regularly convex curve, from the occiput it appears flat, with a slight concavity at center; temporal margin and fringe as in fig. 19; temporal margin, seen from behind, does not protrude; head surface with round, impressed, densely arranged points, interspaces feebly shagreened; eyes

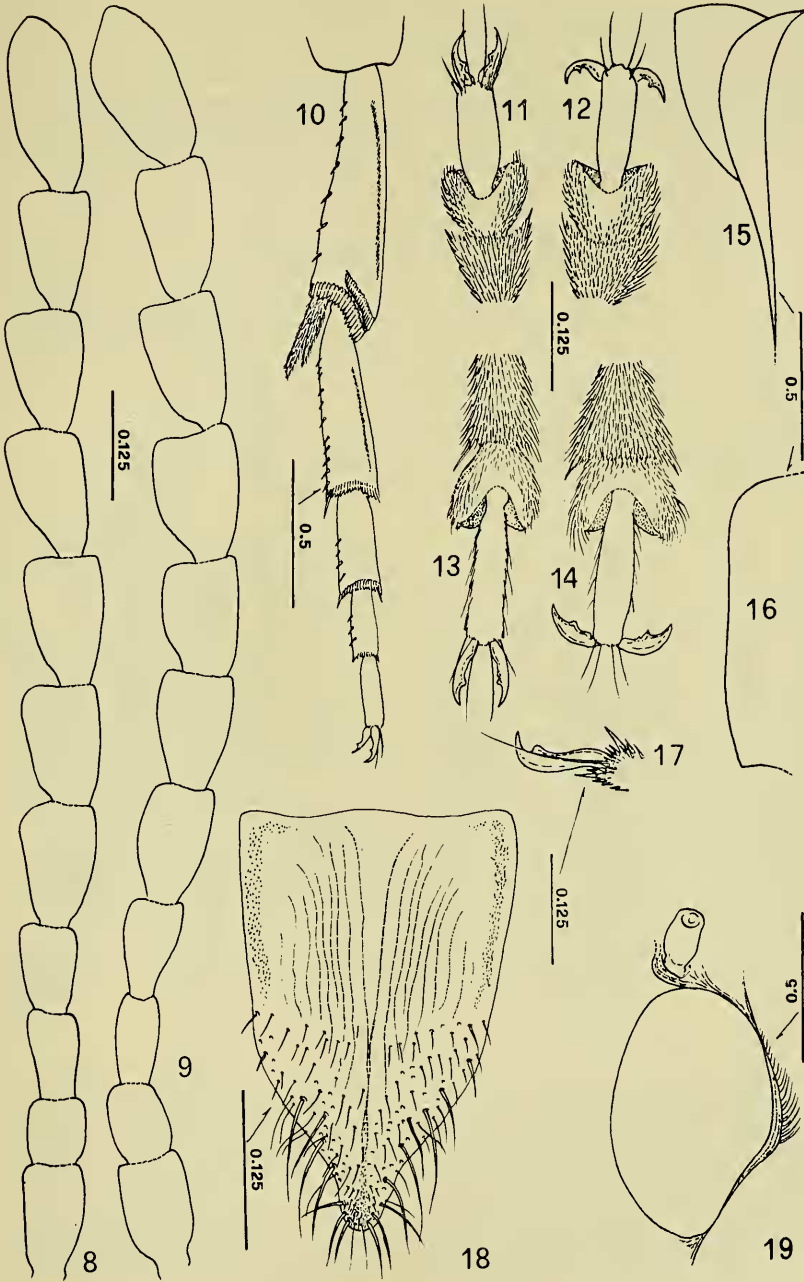
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(10) A redescription is necessary; the only description available, though excellent, is that of BROWN, and present taxonomic requirements involve many characters which were unknown in 1886.

(fig. 19) occupying 1/4th of total width of head (measured along a line across maximum diameter of each eye); tempora totally obsolete. Labial palpi, in both sexes, with last article in form of an aequilateral triangle, flattened and strongly concave at its distal side (fig. 7). Gæla and lacinia as per fig. 5. Maxillary palpi identical in both sexes (fig. 6), in ♂♂ with last article somewhat greater. Antennæ of equal length in both sexes; in ♂♂ last article is broadly and distally truncate at its inner side (fig. 8 ♀ and 9 ♂); when folded backwards, antennae do not overcome the middle of pronotum. Pronotum broader than long (as 9:7), subtrapezoidal, transverse, strongly attenuated anteriorly; its sides, seen from above, build up a regular and convex curve, seen laterally they appear as in fig. 16; puncturation dense, of the file type, with interspaces very finely shagreened; anterior lobe short, protruding, feebly sinuate at sides; anterior margin slightly edged at anterior angles, the edge fading out immediately behind them; anterior angles narrowly obtuse (95°), widely rounded at vertex; hind angles, in 3/4 view, obtuse (120°) strongly smoothed out at vertex; basal lobe protruding, strongly sinuate at sides, broadly rounded in ♀♀, slightly flat-truncate in ♂♂. Scutellum (fig. 4) densely covered with pale, golden, brilliant pubescence. Elytra, in both sexes, 1.6 times long, measured along suture, as their total breadth at shoulders, separately rounded at apices, posteriorly attenuate; puncturation densely arranged, impressed, of the file type, with interspaces distinctly shagreened. Elytral epipleura and metepisterna as in fig. 15. Metacoxal process of mordelloid type. Metasternal expansions with coarse, sparsely arranged, impressed puncturation, each point open posteriorly, interspaces glossy. Metacoxae with file-like puncturation (except periarticular area), interspaces glossy. Abdomen: ration of sterna ♂ 12:8:8:7:7:17, ♀ 15:6:8:7:18; pygidium 3.2 times as long as hypopygium in ♂, 2.0-2.2 in ♀; lateral grooves of pygidium thin, but quite visible from base to apex; the latter is shortly truncate in both sexes (fig. 1,2,3). Hypopygium regularly rounded at apex in both sexes.

8th abdominal sternite (fig. 18) of «*Neocurtimorda*» type; 9th one (fig. 24) lanceolate, destituted of differentiated productions; tubular

Fig. 8-19: *Z. monacha*, 8: antenna (♀ hololect.); 9: same (♂ neoallot.); 10: hind tibia and tarsus (♀); 11: last three front tarsal articles (♀); 12: same, ♂; last three middle tarsal articles (♀); 14: same, ♂; 15: elytral epipleura and metepisternum, ♀; 16: side view of lateral margin of pronotum (♂); 17: inner hind claw, ♂; 18: 8th urosternum (♂ neoallot.); 19: contour of eye, ♀.



process of phallobase ventrally closed (fig. 20); epimere or dorsal process of phallobase of mordelloid type; paramera are articulate to it so as to appear imbricate (the left one, at rest, inserted with its distal expansion between the dorsal and the ventral branch of the right paramere): fig. 21; paramera strongly asymmetric, of type « B »; ventral branch of the right one, internally, has an unusually straight profile (fig. 22-23); penis as long as about half the length of the insect, its apex as in fig. 25.

Legs (refer to diagnosis of genus and to fig. 10-14,17): the inner spur of hind tibiae almost as long as half of basitarsus and 2.3 times as outer spur; both spurs yellow, in both sexes. Average tarsal ratios: ♂ front 4:3:2:2:3, middle 17:10:7:7, hind 17:8:7:6; ♀ front 4:3:2:2:2,

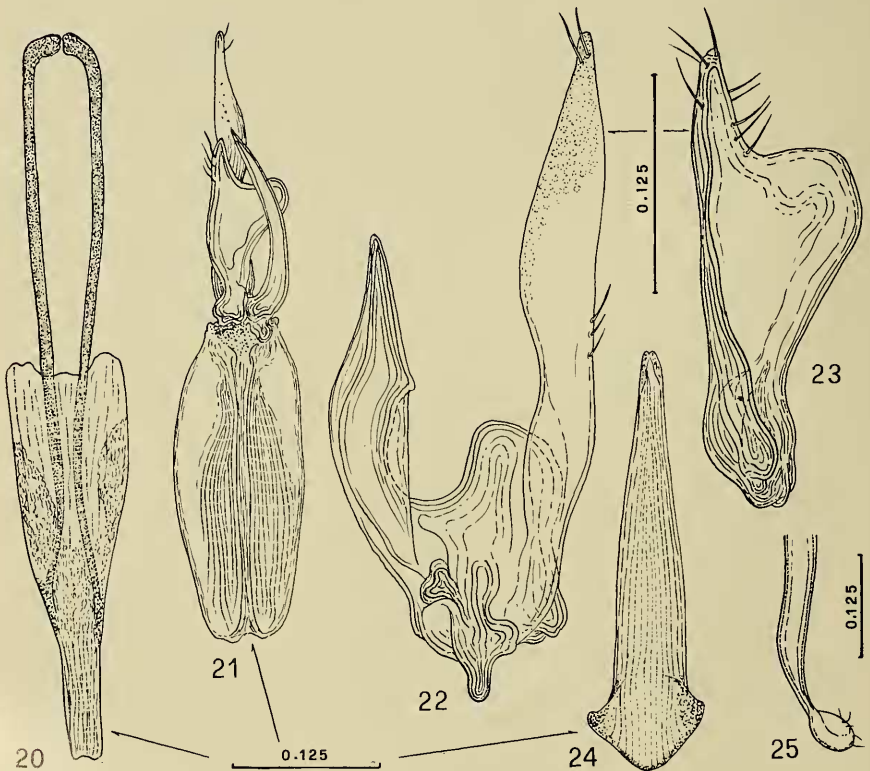


Fig. 20-25: *Z. monacha*, 20: tubular process of phallobase, dorsally; 21: dorsal process of phallobase, paramera attached, at rest, ventrally; 22: right paramere, left side view; 23: left paramere, ventral (topographic) and left side (morphological) view; 24: 9th urosternum, ventrally; 25: apex of penis (all of ♂ neallotype).

middle 16:5:3:2:3, hind 17:10:7:7. ♂♂ have front tibiae hardly curved and 3rd+4th front and middle tarsal articles slightly broader than ♀♀.

Variability is modest in the 15 specimens available; ♂♂ have generally pubescent markings more neat and with more brilliant golden shines (fig. 2); the ♀ of Tauranga only has such a neat set of markings; paramera and ♂ 8th urosternum appear of rather constant form.

### *Stenomordellaria* Ermisch 1950:57

FRANCISCOLO 1952: 70, 1965: 346.

ERMISCH 1962: 369-370.

Type species: *Stenomordellaria neglecta* (Broun 1880:415) c o m b . n o v . (*Stenomordellaria nigra* Ermisch 1950:57-58 = *Mordellistena neglectum* Broun l.c. = *Mordellistena neglecta* Csiki 1915:38 nom. emend.)<sup>(11)</sup>. The genus is at present still monobasic.

### D i a g n o s i s

Form definitely mordellisteninoid (fig. 26 ♂, 27 ♀).

Head normally convex, destituted of setigerous frontal pit, its occipital margin regularly convex and without protuberances or expansions. Eyes complete (fig. 51) with wide hypochranial expansions (fig. 59), densely pubescent, finely granulated; diameter of corneae 0,014 mm. Antennae, in both sexes (fig. 62, 63) not flabellate, articles 4th-10th hardly broader, distally, than 3rd, not dentate, much longer than 3rd. Maxillary palpi (fig. 33,34) of type « A3 » in both sexes, in ♀ more definitely securiform than in ♂. Labial palpi (fig. 31,32) with 3rd article very simply clavate in ♂, briefly truncate at apex in ♀. Gåleae much shorter than one half of head length, hardly longer than laciniae (fig. 30). Pronotum with basal margin bearing an almost flat median lobe (fig. 26,27). Scutellum exactly triangular, briefly smoothed out at vertex

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(11) ERMISCH l.c. writes: « Ich begründe die Gattung auf eine Art aus Neuseeland, die ich einmal als *Mordellistena neglecta* Broun erhielt. Da es sich aber nicht um eine *Mordellistena*-Art handelte, musste die Bestimmung falsch sein. Ob die vorliegende Art etwa als eine *Mordella* beschrieben wurde, entzieht sich aus mehrfach erwähnten Gründen meiner Kenntnis, ich beschrieb sie deshalb als *St. nigra* sp. nov. ». The long, detailed and perfect description of *nigra* by ERMISCH allows its identification with BROUN's species, with no doubt, whereas ERMISCH's genus is totally valid and with exceptional features; ERMISCH was more than justified, having he been misled by the attribution to *Mordellistena* by BROUN of his species, and BROUN himself was obviously misled by the decidedly « mordellisteninoid » aspect of *neglecta*.

(fig. 29). Metepisterna and their relationship to elytral epipleura as in fig. 36. Elytra cover entirely the abdomen, except pygidium; they are separately rounded at apex (fig. 26,27). Hind wings fully developed. Pygidium normally developed, much longer than hypopygium (fig. 28). Front tibiae simple in both sexes, without differentiated distal produc-

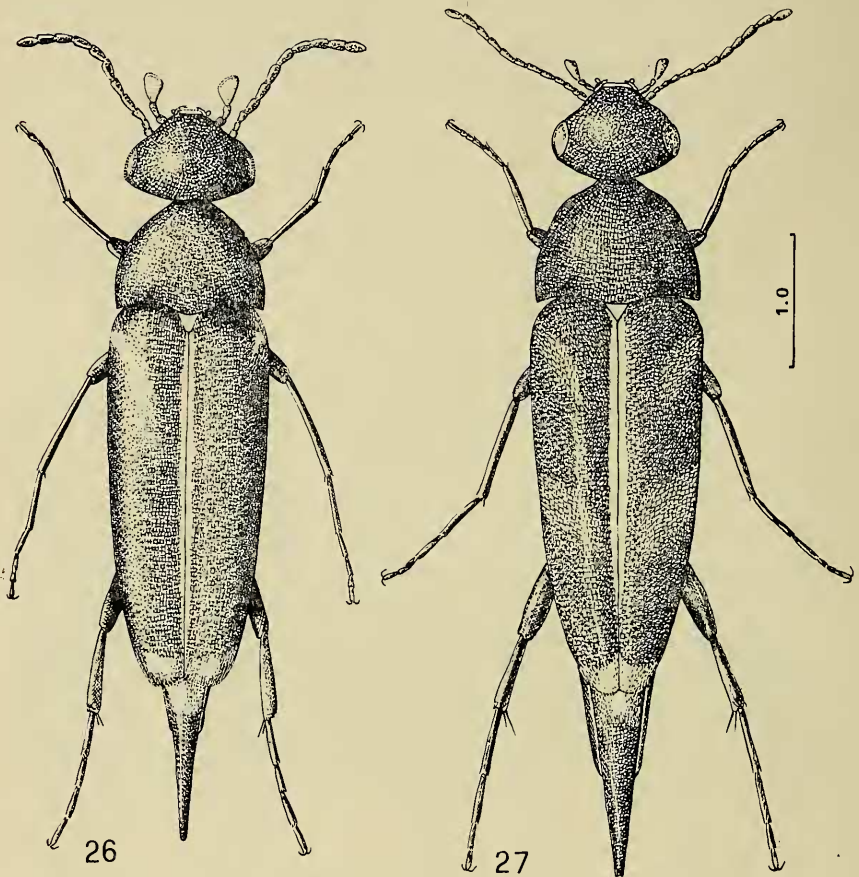


Fig. 26-27: *Stenomordellaria neglecta* (Broun), 26: ♂ holotype; 27: ♀ allotype.

tions. Front tarsi (fig. 38,58) in both sexes, with 4th article hardly broader than 3rd, much narrowly and briefly emarginate. Middle tarsi (fig. 39) with 4th article almost narrower than 3rd one, not emarginate, in both sexes. Middle tibiae much shorter than middle tarsi (as 2:3) in both

sexes (12). Metatibiae bear two apical pubescent spurs; the preapical ridge extremely short (fig. 37), running contiguous and parallel to tibial apical margin; no other ridges either on tibiae or tarsi (fig. 35). Claws are simple in both sexes, totally destituted of indentations, strongly crooked at tip; basipulvilla strongly developed, provided ventrally with a series of long, linearly arranged and rigid hairs (fig. 40-42 ♂, 61 ♀). Paramera strongly asymmetrical, of « B » type (fig. 43,44,45). 8th urosternum of ♂ of « *Mordella* » type.

#### Affinities

*Sternormodellaria* falls within the group of genera having strong affinities with Mordellistenini, which I defined « *Binaghia*-group » (1965:346), with antennal articles 1-3 very small, lengthening and dilatation of articles starting from 4th one (instead of 5th or 6th), paramera frequently subsymmetrical or symmetrical; due to the form of head, the hypochranial expansions of eyes and the general aspect, this group of genera can be regarded as a transition between Mordellini and Mordellistenini; their geographical distribution is very peculiar.

*Stenomordellaria* can be included in my key to world genera (1965:346) as follows:

- 27 (36) Antennal articles are dilatated and longer starting from the 4th one (genera of the « *Binaghia*-group »).
- 27A (27B) Occiput provided with a large median protuberance partly concealing the anterior lobe of pronotum. Hind tibiae, first and second article of hind tarsi with a robust and neat dorso-lateral ridge *Binaghia* Francisc. 1943:297  
Two species only (Island of Fernando Poo): *humerosticta* Francisc. and *conci* Francisc. l.c.
- 27B (27A) Occiput in form of a regular semicircle, with no median protuberance.
- 27C (27D) Base of head hardly larger than anterior side of pronotum, with a wide temporal area behind eyes; pronotum rectangular, 1.2 times longer than broad; propygidium

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(12) BROUN (l.c.) writes « ...the front pair not longer than their tarsi, the intermediate are longer... »; however, the ratio 2:3 is constant even in the specimens identified by BROUN; see also ERMISCH l.c.

- totally exposed, not obtected by elytra .....  
 ..... *Mordellapygium* Ray 1930:143  
 Two species only (Philippines: Luzon and Mindanao): *elongatum* Ray, *philippinensis* Ray l.c.
- 27D (27C) Base of head always narrower than pronotum; tempora wanting; pronotum always subtrapezoidal, definitely broader than long; propygidium not exposed (at times only its pleural edges are protruding beyond elytral margins).
- 27E (27F) Hind tibiae with a strong dorso-lateral ridge .....  
 ..... *Stenomorda* Ermisch 1950A:17  
 Two central-african species: *vittatipennis* (Pic 1931), *motoensis* (Pic 1921) ERMISCH 1950A:17, 1958:379; two in East Africa (*fasciata* Ermisch 1968:260, *flavipes* Ermisch 1968:261); one in Madagascar: *te-traspilota* (Fairm. 1895) FRANCISC. 1965:346.
- 27F (27E) Hind tibiae without dorso-lateral ridge.
- 27G (27H) Last article of maxillary palpi cultriform, narrow, of type « D » in both sexes; antennae of unusual length, folded backwards they join the middle of elytra; articles 1-3 small, from 4th one (as long as 1+2+3rd) very long and much larger than preceding ones; paramera of « D » type, subsymmetrical *Stenomordella* Ermisch 1941:116  
 One species in Fu-kien (South China): *longeantennalis* Ermisch l.c., and another in Cape Province: *macrocephala* Francisc. 1965:380.
- 27H (27G) Last article of maxillary palpi securiform (hence either of « A » or « B » type) in both sexes; antennae of normal length; 4th article not longer than 2+3rd or as long as 3rd only; paramera (except in *Stenomordellariodes* Erm.) always strongly asymmetrical, never of « D » type.
- 28 (31) Eyes totally glabrous; middle tibiae much longer than middle tarsi; refer to couplet 31(28) in case of middle tibiae being hardly longer than middle tarsi (*Aelptes*).
- 29 (30) 4th article of maxillary palpi, in both sexes, of « A » type, in form of a scalene triangle; 4th article of front and middle tarsi as large as 3rd one, briefly emarginate,



not bilobed; left paramere without dorsal branch; right paramere with a short, strongly sclerified dorsal branch; 8th urosternum of ♂ distally lobed, not bifide. . . . .  
 . . . . . *Wittmerimorda* Francisc. 1952:68  
 So far one species only (Est. do Rio, Brazil):  
*gymnophthalma* Francisc. l.c.

30 (29) 4th article of maxillary palpi of « B » type in ♂ (« gli-poid ») and of « A » type in ♀; 4th article of front and middle tarsi much larger than 3rd, deeply emarginate in the front pair and emarginate-bilobed in the middle one; left paramere provided of a long dorsal branch; right paramere with a very long and membranous dorsal branch; 8th urosternum of ♂ distally deeply bifide . . . . .  
 . . . . . *Mordellopalpus* Francisc. 1955:179

One species only (Buru Is., Moluccas): *antennarius* Francisc. l.c.:181.

31 (28) Eyes densely hairy; middle tibiae either definitely shorter (*Stenomordellaria*), or as long as (*Stenomordellarioides*), or hardly longer than middle tarsi (*Aelptes*).

32 (33) 4th front and middle tarsal article much larger than 3rd, deeply excised and bilobed; ♂ max. palpi of type « A » (last article securiform, scalene); ♂ labial palpi with last article distally dilatated and truncate . . . . .  
 . . . . . *Aelptes* Francisc. 1965:385

One species in Mozambico (*clavipalpis* Franc. l.c. 386) and two in Madagascar: *vadoni* (Pic 1937), *carnoti* (Pic 1937), FRANCISC. 1965:385.

33 (32) 4th front tarsal article narrow, distally not broader than 3rd, more or less slightly emarginate at apex, never bilobed; some times so it is the 4th middle tarsal article as well, but in *Stenomordellaria* it is transversely truncate without apical emargination.

34 (35) 4th to 10th antennal articles not more than 1.5 times long as their maximum breadth, strongly dentate; middle tibiae as long as middle tarsi; front and middle tarsi with 4th article briefly emarginate in triangle at apex; all claws bidentate, not crooked; basipulvillus simple, not sclerified; paramera symmetrical, of « D »

type; 8th urosternum of ♂ with complete and protruding median lobe *Stenomordellariodes* Ermisch 1954:92

One species in Transvaal (*quadrimaculata* Erm. l.c.) and one in Ivory Coast (*fasciata* Erm. 1968:258).

- 35 (34) 4th to 10th antennal articles from twice (♀) to 2.4 (♂) times as long as their maximum breadth, cylindrical, not at all dentate (fig. 62-63); middle tibiae much shorter than middle tarsi (as 2:3); 4th front tarsal article with a narrow and semicircular apical emargination (fig. 38,58); same article of middle tarsi transversely truncate, not emarginate at tip (fig. 39); all claws simple, strongly crooked, basipulvilla crooked as well and strongly sclerified, provided ventrally with a linear set of robust hairs (fig. 40-42, 61); paramera strongly asymmetrical, of « B » type (fig. 43-45); 8th urosternum of ♂ distally bifide (fig. 49,60) *Stenomordellaria* Erm. 1950:57

One species only, in New Zealand: *neglecta* (Broun 1880:415).

- 36 (27) Key follows, unchanged, as in l.c.: 346.

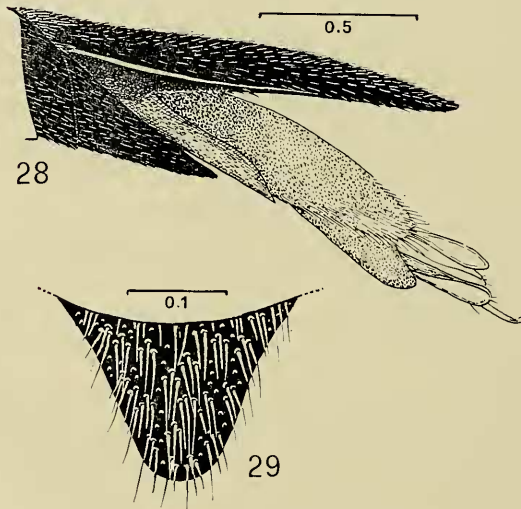


Fig. 28-29: *S. neglecta*, 28: side view of terminal urites, ♂ hololect.; scutellum of same.

Some attention has to be paid to those antimerous sclerites connected to unguifer independently from claws, fitting within their hollow bases; they are moved by the same pretarsal muscle (flexor and retractor) acting on claws. As objectionable as it may appear, these antimeri must be identified as modified basipulvilla (or auxiliae); CROWSON (1967:122, fig. 156,157) defines them « appendix from base of claw » whereas (p. 119) he says that Mordellidae have claws « ...serrate and with bristle-like lobes beneath them »; MULSANT (1856:7, fig. 11 of T. II), who was the first Author to note that in Mordellidae claws are « ...longitudinalement fendus chacun..., avec la partie supérieure de chaque branche ainsi divisée, plus ou moins distinctement denticulée », and EMERY (1876:3) « ...divisés et pectinés » do not mention anywhere else this peculiar structure; RAY and myself have often used claw structure (form, denticulations) for identification purposes; in all genera so far examined claws are dentate; only *Mordellistena arabyssa* Francisc. (1956A:467) is known to have very feebly dentate claws (particularly those of median pretarsi) and with denticulations strongly reduced in number (3-2-2), but basipulvilla are simple and hair-like. Consequently *Stenomordellaria* appears as an extreme case in the whole Family, involving a modification in Family definition.

The key to genera, however, uses this peculiar feature to separate *Stenomordellaria* from *Stenomordellariodes* only; at this stage, in fact, the philogenetic interpretation of such a character rises several problems because: *a*) such antimeri are not mentioned in a large part of available descriptions (mainly LILJEBLAD's and ERMISCH's) hence their structure has to be verified in several genera; *b*) I am still uncertain as to their identification with basipulvilla or auxiliae; *c*) Scaptiidae and Melandryidae are destituted of such sclerites, whereas in Cephaloidea they appear in form of a submembranaceous lobe (in that meeting more precisely the morphological structure of true auxiliae); *d*) in Rhipiphoridae we have antimerous sclerites in form of a subungueal thin seta (Pelecotominae), or strong pectinate ones with claws totally simple (in the most aberrant genera of Rhypidiinae) and finally in Rhipiphorini claws appear apically bifide, not dentate at all, because the « basipulvillus » is obviously fused dorsally to claw almost to its apex, whereas between claws there is a medial lobiform process, strongly sclerified, identifiable as an arolium; *e*) in Meloidae (constantly having robust but simple claws) such sclerites are always present, they are sword-like, strongly sclerified, simple, their dimensions almost identical to those of

claws, basally articulated as in Mordellidae (PAOLI 1937:153, fig. 83 identifies them with pulvilla, as in Diptera). Such a composite situation requires a comparative morphological study not in the scopes of this paper.

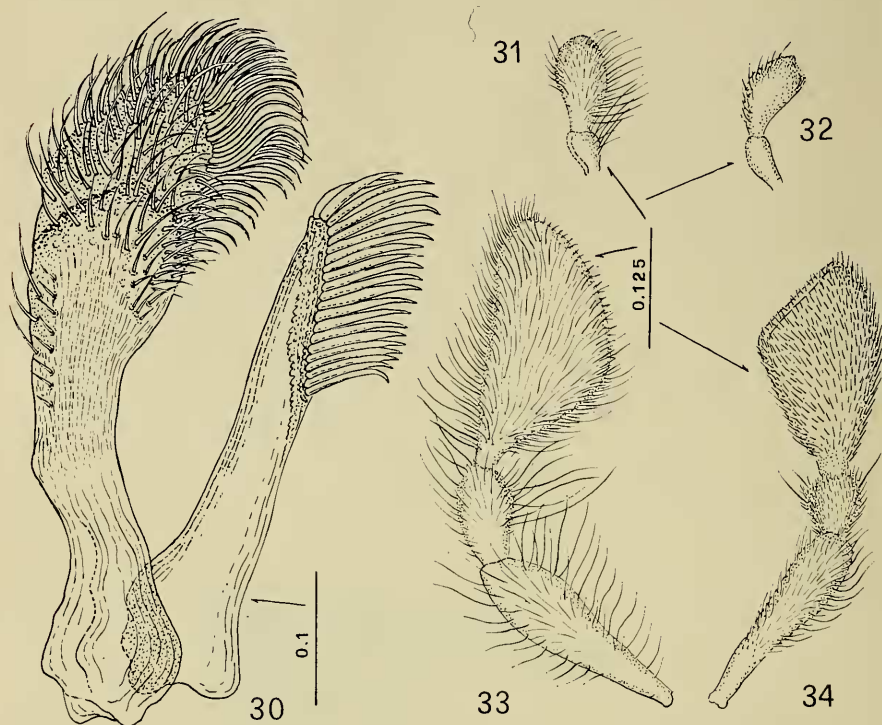


Fig. 30-34: *S. neglecta*, 30: galea and lacinia, dorsally, ♂ hololect.; 31: last two articles of labial palpi (♂ hololect.); 32: same, ♀ allect.; 33: last three articles of maxillary palpus, ♂ hololect.; 34: same, ♀ allect.

## Discussion

*Stenomordellaria* is closely related to ethiopic *Stenomordellariodes*, sharing with it (within « *Binaghia*-group ») the strongly mordellisteninoid features (the form of front and middle tarsi, the hypochranial expansions); the structure of pretarsi may be interpreted as apomorphic and, as such, not of primary relevance in the classification. « *Binaghia*-group » (quite homogeneous) has a distribution (fig. 64) mainly concentrated,

with 9 genera (3 of which are monobasic) and 18 species only, on equator and the southern hemisphere (*Mordellapygium* only appears to be confined to Philippines); *Stenomordella* follows the same pattern of distribution already discussed for *Neocurtimorda* and tropical *Stenalia* with oblique hind tibial lateral ridges (FRANCISCOLO 1967:187); it is therefore evident that such group of genera follows the distributional pattern of « rain forest genera » (ibid.: 182); finally, one genus only is known from tropical Neogea. All that suggest that « *Binaghia*-group » has to be regarded as the remains of a stock of very old date<sup>(13)</sup>, of the early tertiary, from which (within Mordellini) have derived Mordellistenini (having a small number of genera, but with a few ones with a very large number of species). I think, therefore, that the choice of ERMISCH (1950) of the antennal structure as basic plesiomorphic char-

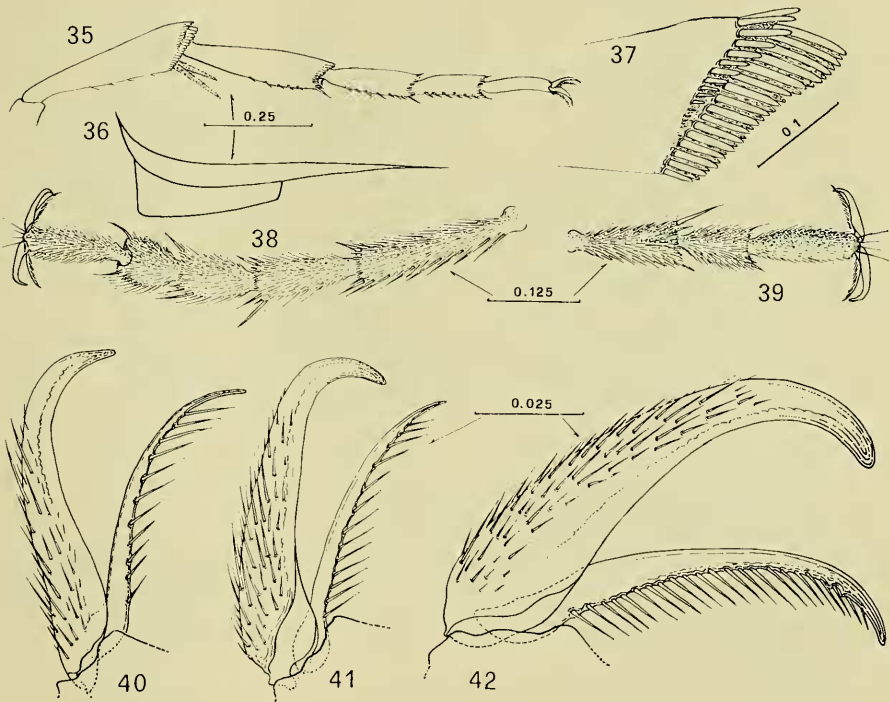


Fig. 35-42: *S. neglecta*, 35: hind tibia and tarsus (♂ holotype); 36: elytral epipleura and metepisternum (♂); 37: distal part of hind tibia (♂); 38: front tarsus (♂); 39: same, ♀, last three articles; 40: front inner claw and antimerus hypoungueal sclerite (basipulvillus?), ♂; 41: same, middle (♂); 42: same, hind (♂).

acter for building up a phylogenetically valid system at genus rank, is fully acceptable.

The hypothesis of Mordellistenini being regarded as the relatively most recent tribe of Mordellidae is not contradicted by their total absence in New Zealand (according to the rather significant material now at hand); a similar situation, at subfamily rank, and involving the whole of Australia, has been already noted in Scaptiidae (FRANCISCOLO, Mem. Soc. Ent. Ital., 51, 1972:151, fig. 128-130).

**Stenomordellaria neglecta** (Broun 1880:415) comb. nov.

*Mordellistena neglectum* Broun l.c.

*Mordellistena neglecta* Csiki 1915: 38 nom. emend.

*Stenomordellaria nigra* Ermisch 1950: 57-58; 1962: 369-370 syn. nov.

Locus classicus: « This species also occurs at Tairua » (BROUN l.c.) (14).

Species examined: 111, so labelled: 1 ♂ (designated holotype) « 733/N/Zel. Broun/*Mordellistena/negletum* (sic!) » (MCSN); 1 ♂ designated lectoparatype « 733 » (MCSN); 1 ♀ designated allolectotype « 733/T. Broun/Collection/A.E. Brookes/Collection/*Mordellistena neglecta*/det. T. Broun » (NZAC); 1 ♀ design. lectoparatype « 733/T. Broun/Collection/A.E. Brookes/Collection » (NZAC); 1 ♂ design. lectoparatype « near/733, id. id. » (NZAC); 1 ♀ design. lectoparatype « Waikiti/var. 733, id. id. » (NZAC); 1 ♂, 2 ♀♀ design. lectoparatypes « 733/T. Broun/Dup. Coll. » (NZAC) (15).

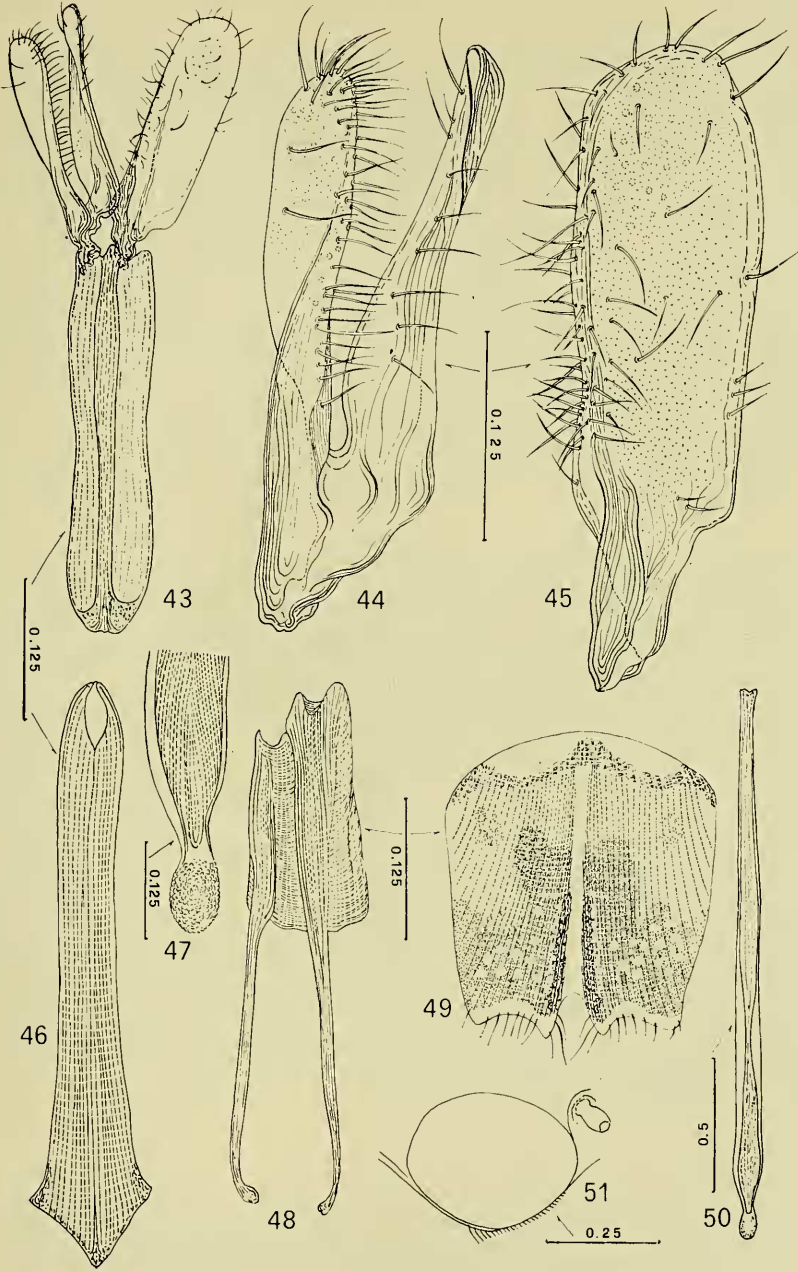
1 ♂, 2 ♀♀ « Waitakeri / 30-12-14 / 733 / T. Broun / Collection / A.E. Brookes Collection » (NZAC); 1 ♂ « Swanson/14.12.16/733/id. id. »

(13) I would define this stock as « pre-mordellisteninoid ».

(14) BROUN so writes because at p. 414 he described « *Mordella tibialis* » (nunc *Machairophora* Francisc. 1943A) from Tairua as well.

(15) These 9 specimens, numbered « 733 » (assigned by BROUN as serial number to his description in 1880), same hand-writing of N. « 1505 » for *Zeamordella* (see p. 197) belong to the series used by BROUN himself for the description; the additional indication to holotype is by the same hand (G. Mantero's ?) as for *Zeamordella*.

Fig. 43-51: *S. neglecta*, ♂ holotype, 43: dorsal process of phallobase, paramera attached, divaricate, ventrally; 44: right paramere, left side view; 45: left paramere, ventral (topographic) and left (morphological) view; 46: 9th urosternum, ventrally; 47: apex of penis, dorsally; 48: tubular process of phallobase, ventral 3/4 view; 49: 8th urosternum, ventrally; 50: penis, dorsally; 51: contour of eye.



(NZAC); 1 ♀ « Magg-3/id. id. » (NZAC); 1 ♂ as above (NZAC); 2 ♀♀ « Hunua/n. sp./id. id. » (NZAC) <sup>(16)</sup>.

Following specimens (all NZAC if not otherwise indicated), 9 ♂♂ 9 ♀♀ « Otau V./Hunua Ra./Auckland/J.C. Watt » (1 ♂, 1 ♀ MCSN; 1 ♀ Author's coll.); 1 ♂, 1 ♀ « Picton/Marlborough/7 Dec 71/J.S. Dugdale »; 1 ♂, 2 ♀♀ « Opouri/Nelson/10 Jun 69/J.S. Dugdale »; 1 ♂ « Kauaeranga Vall./Thames/18-20 I.60/J.I. Townsend & R. Zondag »; 1 ♂, 2 ♀♀ « Okiwi/Great Barrier Island/beating flowering *Leptospermum*/24 Nov 57/J.C. Watt »; 1 ♂, 1 ♀ « Maungatapu/Tr. 1200'/Upper Maitai/Val. 15.II.67/Nelson/J.I. Townsend/*Hebe stricta* »; 1 ♂ « Omoho Stm/N.W. Taupo/27 Mar 69/H.A. Oliver »; 8 ♂♂, 4 ♀♀ « Opouri/Nelson/14 Jan 68/J.C. Watt/Beating flowering scrub » (1 ♂ Author's coll., 1 ♀ MCSN); 1 ♂ « Spirits Bay/North Island/Nov 67/J.C. Townsend/*Pandora* »; 1 ♀, 2 ♂♂ « Whingamoa/Saddle 1500'/14.3.66/J.I. Townsend »; 1 ♂, 2 ♀♀ « Unuwhao 2113'/Spirits Bay/18.I.66/A.K. Walker »; 1 ♂, 1 ♀ « Foot of/Mt Stokes MB/13 Oct 67/J. McBurney/dead branch/*Coprosma australis*/W67 189/Em. 27 Nov 67/reared »; 2 ♂♂, 2 ♀♀ (1 ♀ missing of head) « Mangarei Heads/ex Manuka/20-22 XII 44/B. Given » <sup>(17)</sup>; 2 ♂♂, 1 ♀ « Collection/13-II-1916/A.E. Brookes/Swanson/Auckland/North Is./A. E. Brooken/Collection »; 1 ♂ « Swanson/14.12.16/733/A.E. Brookes Collection »; 1 ♂ « Swanson/Auckland/J.C. Watt »; 2 ♂♂ « Okania/25.11.22 & 11.2.46/A.E. Brookes/Collection »; 3 ♂♂, 1 ♀ « Maungakaranga/17.13.27 (sic!)/Fairburn/A.E. Brookes/Collection »; 2 ♂♂ « Whangarei/21.12.44; B.B. Given »; 2 ♀♀ « Kapowau/D'Urville Is./Marlborough/Sound/Feb. 71/G. Ramsay »; 1 ♂ « Titirangi/Dec. 1943/M.W. Carter/Com. Inst. Ent./Coll. N. 11103/*Mordellistena* sp./G.E. Bryant det. »; 1 ♂ with same data but « Jan. 1941 »; 2 ♂♂, 2 ♀♀ « Motu River/25.XI.28/A.E. Brookes/Collection »; 1 ♀ « West Plains »; 1 ♂ « Mapua 90' a.s.l./Nelson/9.12.65/W.P. Thomas »; 1 ♂ « Manaia Summit/Whangarei ridge/ex bush/21.12.44 B. Given »; 1 ♂ « Maijeke Is./2 Dec 1941/G. Chamberlain »; 1 ♂ « Collector/17-29.I.30/A.E. Brookes/Gr. Barrier/Island/Whangapara/A.E. Brookes/Collection »; 1 ♀ « Whangapeka Vall./7.3.56/E.S. Gourlay »; 1 ♀ « Tisbury/4-2-20 ».

(16) These specimens have therefore been seen by BROWN himself; indication « near » and « n. sp. » have to be related to the wide range of variation of this species —see p. 218-219).

(17) « Manuka » is the indigenous Maori for *Leptospermum scoparium*, see CHEESEMAN T.F., 1906 - Manual of the New Zealand Flora: XXXVI-1199.



## Bionomics

This species is obviously locally very common and active in a very long annual interval; number of ♂♂ (56) is identical to that of ♀♀ (55) even considering most significant catches; it is spread in the whole of the North Island, including three islets in Hauraki Gulf; it was collected at a remarkable altitude (2111 feet or 550 m); it is an early species (13 Nov.) with a series of subsequent catches till 27 March (3 specimens at 10th June, at the end of austral autumn); it was caught beating scrubs, flowering Myrtaceae (*Leptospermum*) and Scrofulariaceae (*Hebe*). These eco-ethological and phenological features surprisingly coincide with those typical of Mordellistenini at European latitudes, thus agreeing as well with the morphological structures of *Stenomordellaria*; one of the host plants (but we ignore in which role) of larval stages is *Coprosma australis* (Rubiaceae)<sup>(18)</sup> with adult emergence (from a dead branch) in one case on 27th Nov.

## Redescription<sup>(19)</sup>

Dimensions (mm) of ♂ holotype and ♀ allotype: head ♂ 1.3 x 0.35, ♀ 1.5 x 0.45; pronotum ♂ 0.9 x 1.1, ♀ 0.95 x 1.2; elytra ♂ 2.9 x 1.2, ♀ 3.0 x 1.3; total length ♂ 4.5, ♀ 4.65; pygidium ♂ 1.3 x 0.35, ♀ 1.5 x 0.45. The 111 specimens vary consistently in dimensions: the smallest ♂ (one from Otatau) is 3.5 mm long (pyg. excl.); larger ♂♂ (from Opouri) are similar in dimensions to the holotype; the smallest ♀ (one from Otatau) is 4.0 mm long, the largest (from Opouri) 5.0 mm (pyg. excl.).

General form as in fig. 26-27; apart from dimensions (generally larger in ♀) it is difficult to distinguish sexes without re-preparing specimens, except when internal urites are extroflexed; ♂♂ are always rather parallelsided, ♀♀ more dilated at shoulders, their elytra rather attenuate posteriorly; sex identification is easier if pygidio-hypopygial length ratio is considered. Ground color uniformly black, glossy, with feeble bluish shines; epistome, tip of mandibles, labrum, labium, maxillary and labial palpi, maxillae (including their proximal sclerites), brown-

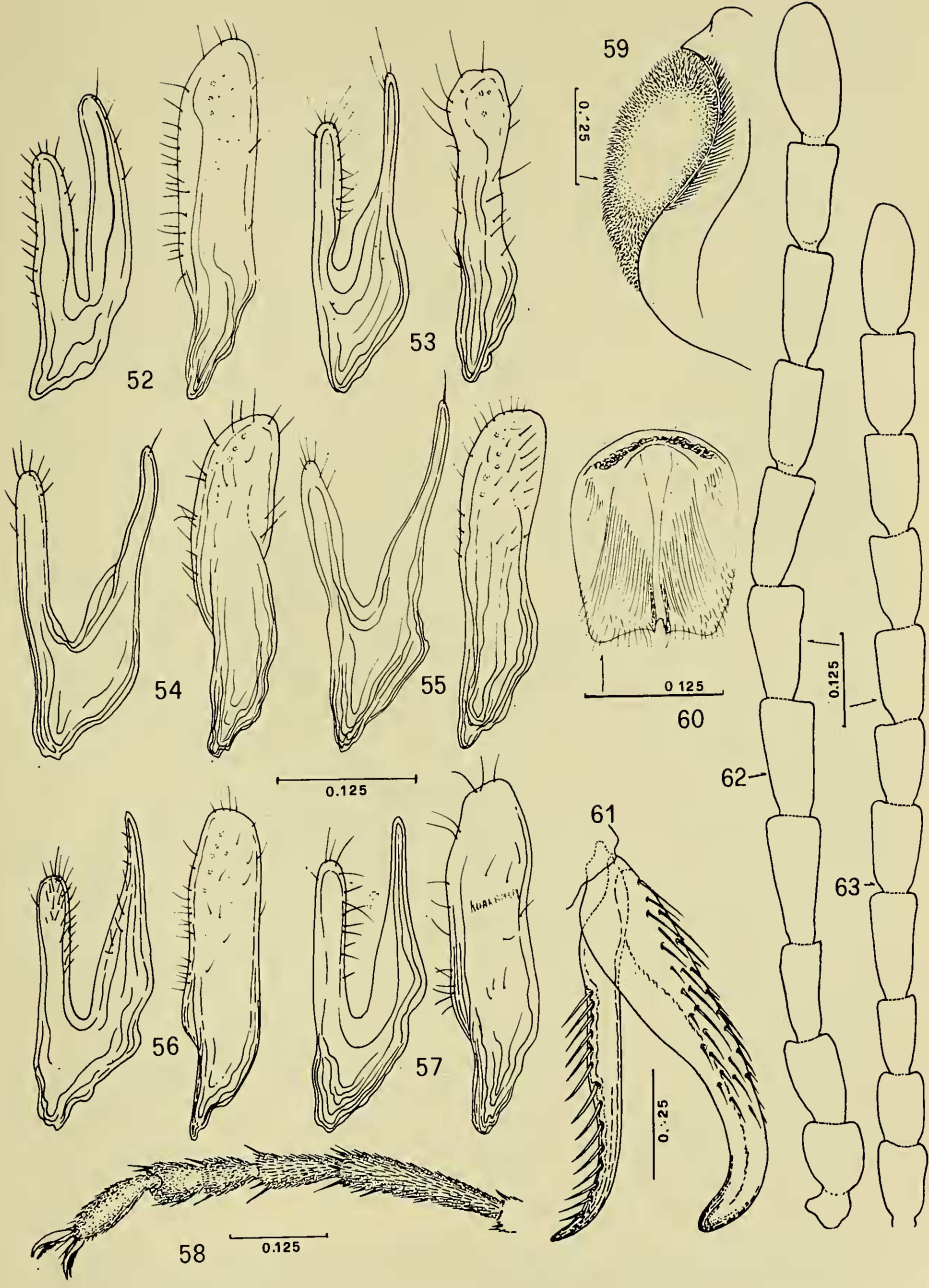
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(18) I thank Dr. Giuseppina BARBERIS and Dr. Roberto POGGI for their help in checking family status of the plants mentioned in this paper.

(19) A redescription is necessary, since ERMISCH l.c. had 3 specimens only at his disposal, of undetermined sex, collected somewhere in « Neuseeland », and (1962: 369) 1 ♂ (Roforna, N. Island, 1-6.XII.56, G. Frey leg.).

yellowish; antennae black, articles 1st to 3rd and proximal half of 4th, yellowish; as a rule legs are black, with front and middle tarsi from brownish to yellowish, in some cases front tibiae are distally yellowish too; a few specimens only have hind tarsi partly or entirely pale brown; hind tibial spurs testaceous in all specimens seen. Ground pubescence dark, shining, sericeous, decumbent, with strong cupreo-violaceous brightness; scutellum and a narrow sutural stripe covered, especially in ♂♂, by a very brilliant silvery pubescence; such stripe, very narrow preapically, broadens at elytral apices to form a double crescent-shaped area; such an area is always present, even in those ♀♀ having both scutellum and suture covered by black pubescence (this occurs in ♀♀ of larger dimensions). ♂♂ have often a narrow humeral oblique spot of silvery pubescence; such spot is more frequent, often neater, in ♀♀, in some of which (e.g. in the allolectotype, fig. 27) there is also an indistinct postmedial band; the usual basal band of white pubescence on pygidium is always present; in specimens showing neat sutural stripe and silvery scutellum, metepisterna, part of metasternum and pleural sides of urosterna are also covered by silvery pubescence. Head strongly convex, much larger than broad (as 10:7), much narrower than maximum width of prothorax; occipital margin, seen from vertex, in form of a regular curve; seen from the occiput, showing a slight concavity at middle; temporal fringe, laterally seen, as in fig. 51, ventrally as in fig. 59; temporal margin well marked but not protruding; tempora are wanting; puncturation consists of very fine, closed, scattered points; interspaces glossy; eyes small, hardly longer than wide, their surface covers about 1/4 of total upper surface of head; they are minutely granulated and densely pubescent, with wide hypochranial expansions (fig. 51, 59). Labial palpi as in fig. 31,32, with last article sharply truncate in ♀. Maxillary palpi as in fig. 33,34. Galea and lacinia as in fig. 30. Antennae

Fig. 52-63: *S. neglecta*, 52: paramera (schematic, same orientation as in fig. 44-45) from a ♂ of Otau Valley, Hunua Range, Auckland, 10.XII.61, J.C. Watt leg. (NZAC); 53, same, from Maungatapu, Upper Maitai Valley, Nelson, on *Hebe stricta*, 15.II.67, J.I. Townsend leg.; 54 same, from Picton, Marlborough, 7.XII.71, J.S. Dugdale, leg.; 55: same from Opouri, Nelson, «beating flowering scrub», 14.L.68, J.C. Watt leg.; 56: same, from Okiwi, Great Barrier Is., «beating flowering *Leptospermum*», 24.XI.57, J.C. Watt leg.; 57: same, from Kauareanga Vall., Thames, 18-20.I.60, J.C. Townsend leg.; 58: front tarsus (♀ allolect.); 59: hypochranial expansions of eye, ♂ hololect.; 60: 8th urosternum of a ♂ from Okiwi (refer to fig. 56); 61: hind right claw and antimerous hypoungueal sclerite (basipulvillus ?), ♀ allolect.; 62: antenna, ♂ hololect.; 63: same, ♀ allolect.



(fig. 62,63) in ♂, when head is not contracted, reach the basal fourth of elytra when folded backwards, in ♀ hardly overcoming with the 11th article the hind margin of pronotum. Pronotum convex, subtrapezoidal, larger than long (as 11:9) <sup>(20)</sup>, strongly narrowed anteriorly; puncturation of the file type, densely arranged, little impressed, with glossy, transversely shagreened interspaces; edge at anterior margin is thin, not dilated at front angles, obsolete immediately behind them; anterior angles obtuse (100°) and broadly smoothed out at vertex; side margin of pronotum, seen laterally, broadly S-shaped; hind angles not smoothed out at vertex, square; basal lobe wide, very little protruding, feebly sinuate at sides and apically flattened. Scutellum as in fig. 29; its form is constant in all 111 specimens. Elytra from 2.4 to 2.8 times long as their combined breadth at shoulders, convex, separately smoothed at apex; puncturation is of the file type, denser and deeper than that of pronotum, interspaces glossy, with transversely arranged, undulated shagreen; elytral epipleura and their proportions to metepisterna as in fig. 36. Metacoxal process of typical mordelloid shape. Metacoxal expansions and metacoxae (except periarticular area) densely file-punctured, interspaces rugosely shagreened. Ratio of abdominal sterna: ♂ 8:6:4:4:11, ♀ 6:6:6:5:11; urosternal surfaces densely file punctured, interspaces glossy with light and fine shagreen. Pygidium in ♂ 3.05 times as long as hypopygium, in ♀ from 2.8 to 3.0 times; in ♂, laterally seen, as in fig. 28; dorsally it is usually larger at base in ♀♀, less attenuated posteriorly; apex briefly truncate in both sexes; hypopygium briefly smoothed out at apex in both sexes, without depressions or excisions, apically, in ♂♂. 8th urosternum of ♂ of « *Mordella*-type », strongly variable in dimensions, constant in form (fig. 49,60); 9th urosternum of ♂ as in fig. 46; ventral process of phallobase (fig. 48) ventrally open; penis (fig. 49,50) as long as 1/3 of insect's length; epimere (dorsal process of phallobase) of mordelloid type; paramera are articulated to it in the usual manner, in order to appear imbricate to one another at rest (fig. 43); paramera strongly asymmetrical, generally meeting the shapes shown in fig. 44 and 45, with a certain variation amplitude, especially the left one, without no constant patterns of variation being detectable even in specimens of the same collecting date (as usual in *Mordellistena*, for instance) and

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(20) BROUN (l.c.) writes: « Thorax not much longer than broad... », but this statement does not fit with any of the specimens seen by himself.

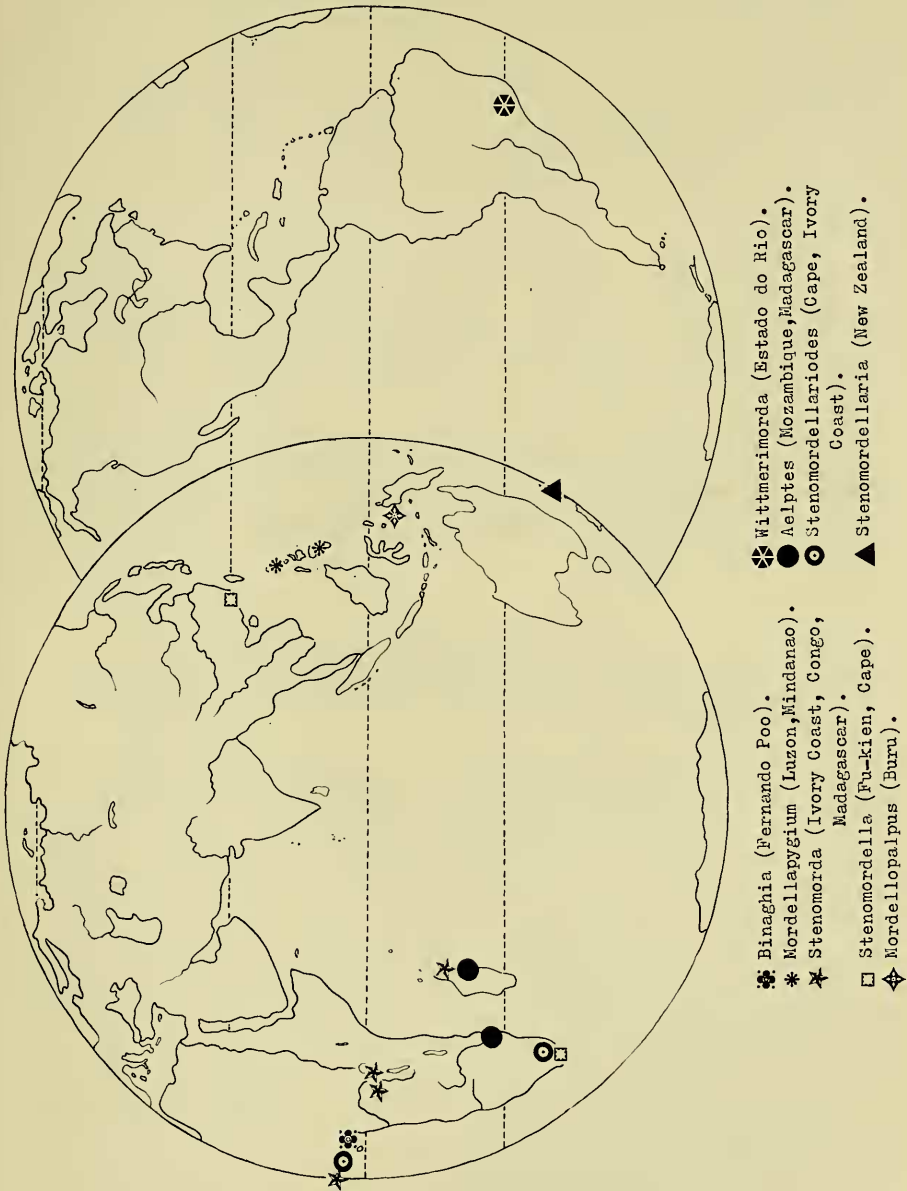


Fig. 64: Double orthographic projection showing punctiform known distribution of the nine genera of the *Binaghia*-group; explanations and discussion at p. 210-212.

totally in disagreement with variations affecting other characters (most relevant cases are shown in fig. 52-57 with locality indications). Refer to genus diagnosis for leg structure and fig. 35,37-42,58,61; inner hind tibial spur is 1.3 times long as outer one (this character is constant) in both sexes; front tibiae of ♂ feebly curved; paler front tibiae prevail in males. Average tarsal ratios: ♂ front 10:6:4:3:6, middle 18:9:5:4:7, hind 31:20:15:13; ♀ front 10:9:6:5:12, middle 23:11:9:8:9, hind 33:13:11:12.

Variability is extreme even in paramera, exactly as it happens in many holarctic *Mordellistena* s.l. having, like *neglecta*, very long imaginal activity periods in the year (due to subsequent emergences from early spring to autumn) and whose polymorphism is largely responsible of their complex synonymy. This is an indication that *neglecta* is undergoing a fragmentation process, taxonomically not appreciable at present; we need more details about host plants, duration of larval instars, dates of emergence, plants attracting imagos, to check the degree of concomitance between population behaviours and the morphological polymorphism in question.

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## RIASSUNTO

Su materiale contemporaneo si ridescrivono *Zeamordella monacha* Broun 1886 e *Stenomordellaria neglecta* (Broun 1880) olim *Mordellistena* comb. nov.; *Stenomordellaria nigra* Ermisch 1950 è posta in sinonimia con *S. neglecta* (Broun) syn. nov. Si discutono le affinità dei due generi. *S. neglecta* presenta una struttura dei pretarsi del tutto insolita, rendendo necessaria una ridefinizione della famiglia Mordellidae.

## SUMMARY

Upon contemporary material redescrptions are given for *Zeamordella monacha* Broun 1886 and *Stenomordellaria neglecta* (Broun 1880) olim *Mordellistena* comb. nov.; *Stenomordellaria nigra* Ermisch 1950 is junior synonym of *S. neglecta* (Broun). Affinities of the two genera are discussed. *S. neglecta* has a pre-tarsal structure requiring some re-definition of the family Mordellidae.

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